DOE/MT/94014-16
(OSTI ID: 14115)

A STUDY OF THE RELATIONSHIP OF GEOLOGICAL FORMATION TO THE NORM

Quarterly Technical Progress Report
July 1, 1998-September 30, 1998

By
Talmage P. Bursh
Derald Chriss

Report Issue Date: October 18, 1998

Performed Under Contract No. DE-FG22-94MT94014

Southern University and A&M College
Center for Energy and Environmental Studies
Baton Rouge, Louisiana

DISCLAIMER

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

DOE/MT/94014-16
Distribution Category UC-122

A Study of the Relationship of Geological Formation to the Norm

By
Talmage P. Bursh
Derald Chriss

October 1999

Work Performed Under Contract DE-FG22-94MT94014

Prepared for
U.S. Department of Energy
Assistant Secretary for Fossil Energy

John K. Ford, Technology Manager
National Petroleum Technology Office
P.O. Box 3628
Tulsa, OK 74101

Prepared by
Southern University
Center for Energy and Environmental Studies
P.O. Box 9764
Baton Rouge, LA 70813

ABSTRACT

Naturally Occurring Radioactive Materials (NORM) is a common and costly contaminant of produced waters associated with natural gas production and exploration. One way of combatting this problem is by identifying the problem beforehand. Our approach to this problem involves development of NORM prediction capabilities based on the geological environment.

During quarter sixteen of this project, work has continued under the approved revisions. We have received the first of our produced water samples and analysis is underway. In addition, the QA/QC plans have been completed and are currently being implemented.

TABLE OF CONTENTS

EXECUTIVE SUMMARY:

The Southern University Center for Energy and Environmental Studies along with partners Louisiana State University's Basin Research Institute (BRI), and the U.S. Geological Survey (USGS) have teamed up to explore relationships between geological and radiological factors (NORM). Each of these partners will employ their specific areas of expertise in developing predictive capabilities with respect to NORM in the produced waters associated with natural gas exploration.

PROJECT INTRODUCTION:

This project is to consist of three major tasks: (1) Radiological Analysis, (2) Correlative Results with Respect to NORM Activity and geological parameters (Geo-environmental maps), and (3) Technology Transfer.

The radiological and minor chemical analysis of samples are taking place at Southern University with the geo-environmental results being generated at Louisiana State University.

RESULTS AND DISCUSSION:

During this reporting period, efforts were geared towards obtaining samples and beginning the analysis of these samples. The appropriate methods, etc., are in place and are currently being employed. The initial stages of radiation analysis are in progress as well as implementation of our QA/QC plan.

CONCLUSION:

Sampling sites have been selected and some samples have been acquired. We are also currently in the process of implementing our QA/QC plans. We have obtained some results and have preliminarily reached some conclusions from these results. All other major tasks associated with the project are in progress.